

FirstNet Update for Massachusetts Stakeholder Groups



Fall 2014

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FirstNet Single Point of Contact, Commonwealth of Massachusetts

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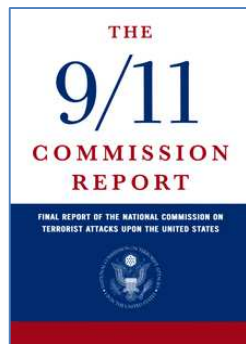
Project Director, Commonwealth Public Safety Broadband Office

FirstNet Alternate Single Point of Contact, Commonwealth of Massachusetts

Origins of FirstNet and National Public Safety Broadband Network (NPSBN)



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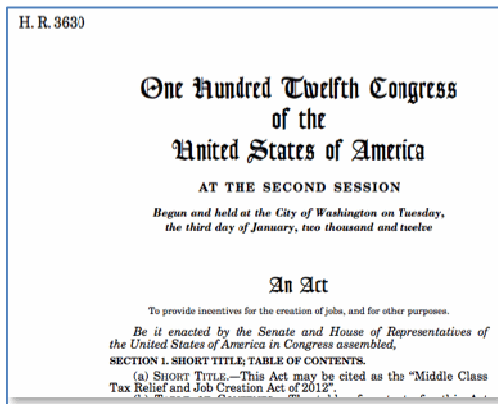
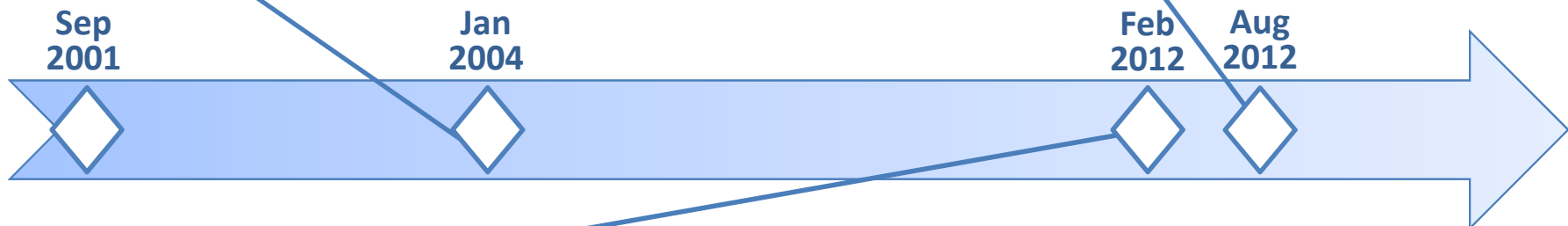


9/11 Commission
**recommends improved
communications** for public
safety and first responders.



FirstNetTM

Dept of Commerce
establishes **FirstNet Board**



Middle Class Tax Relief and Job Creation Act of 2012

- Establishes **Technical Advisory Board** for First Responder Interoperability within the FCC
- Authorized the NTIA to establish **First Responder Network Authority (FirstNet)**
- Directed FirstNet to establish the NPSBN based on a **single, national network architecture**
- Reallocated **700 MHz D Block spectrum** to public safety (under license to FirstNet)
- **Authorized funding** through spectrum auctions

Introduction to the Public Safety Broadband Office (PSBO)



Governor Patrick designated **EOPSS Undersecretary Curtis Wood** as the Commonwealth's **Single Point of Contact (SPOC)** to FirstNet.

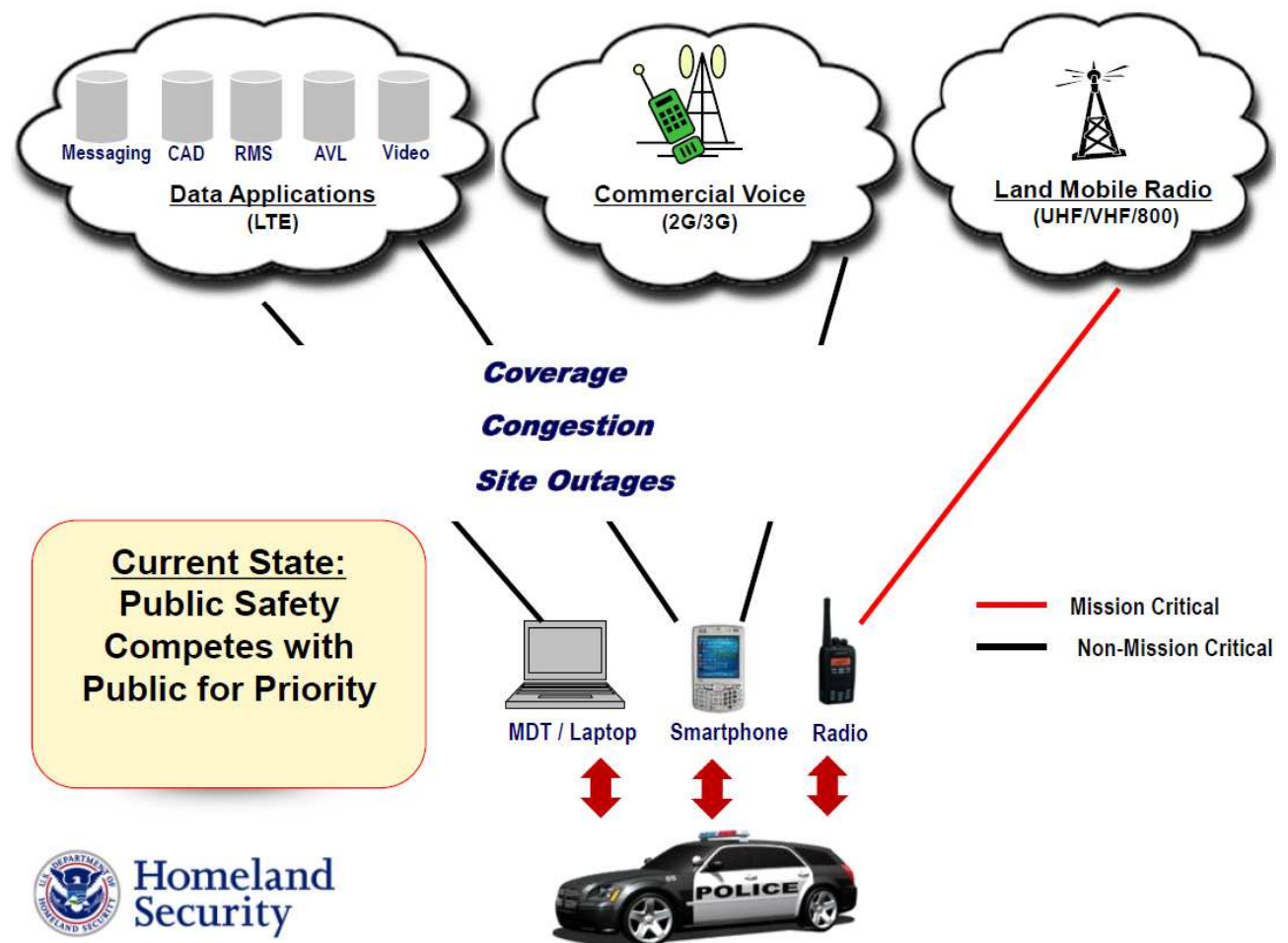


The Need for FirstNet and the NPSBN

Current State: Public Safety competes with the public for priority.

Immediate Goal:
Make data
mission critical
for public safety

Long-Term Goal:
Develop mission
critical voice
over LTE



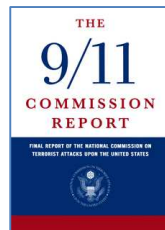


FirstNet by the Numbers

VISION *To provide emergency responders with the first nationwide, high-speed, wireless broadband network dedicated to public safety*

THE ORIGIN

9/11 Commission recommends improved communications for public safety and first responders.



THE LAW

2.22.12 FirstNet becomes Law in Title VI of the Middle Class Tax Relief and Job Creation Act of 2012 (PL 112-96).



FUNDING

\$7B authorized to build the FirstNet network. Funded by spectrum auctions through 2022. The first auction netted



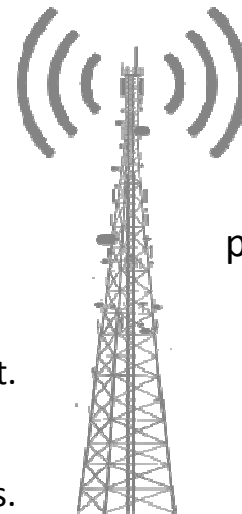
\$1.6B

GOVERNANCE

FirstNet Board of Directors' 15 members have backgrounds in police, fire, sheriff, emergency medical, city government, and commercial telecommunications.

Governor appoints 1 Single Point of Contact (SPOC) and governing body to represent the state's interests to FirstNet.

40 member Public Safety Advisory Committee (PSAC) advises FirstNet on public safety intergovernmental matters.



SPECTRUM

20MHz of bandwidth has been dedicated to public safety in the prime 700MHz frequency range.

TECHNOLOGY

4G LTE is 10x faster than 3G wireless service.

FirstNet Coverage

Over 5 Million potential public safety users nationwide over...



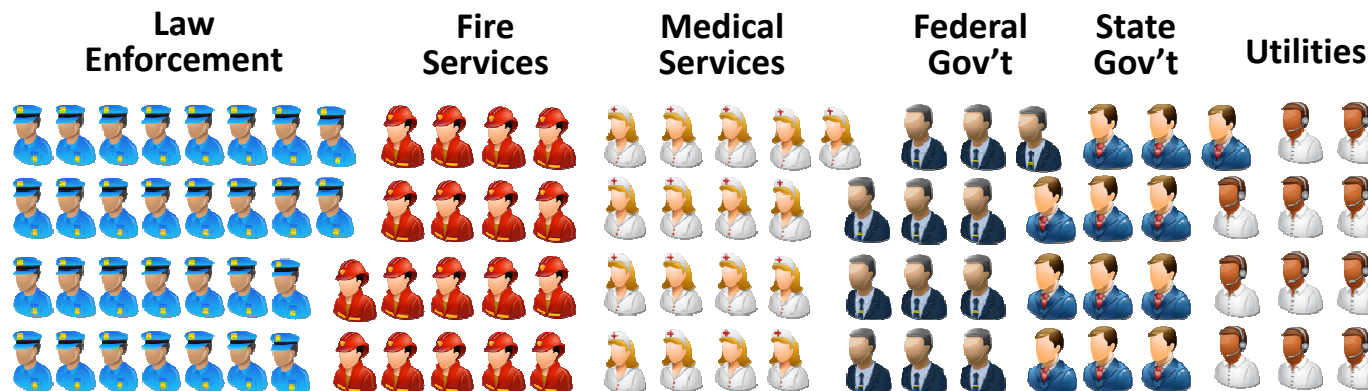
3,800,000
Square Miles

60,000
Public Safety Agencies

...across the breadth of first response and public safety.

3,250
Counties

566
Tribes



Coverage Challenges

5%



Dense Urban
Urban
Suburban

68%



Rural

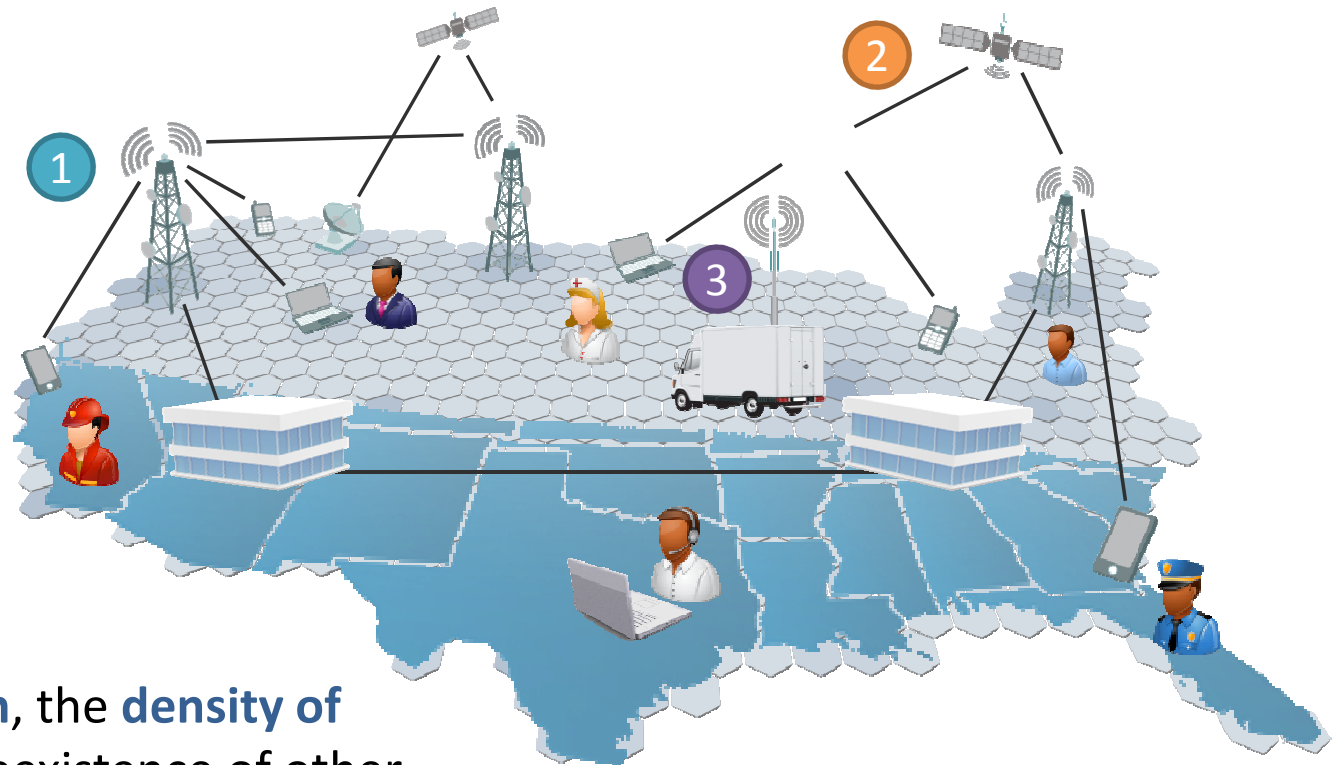
27%



Wilderness

3 IN 1 COVERAGE APPROACH

- 1 Terrestrial towers and various small cells
- 2 Satellites
- 3 Deployables



The nature of the **terrain**, the **density of populations**, and the preexistence of other **infrastructure** are factors when determining coverage approaches.

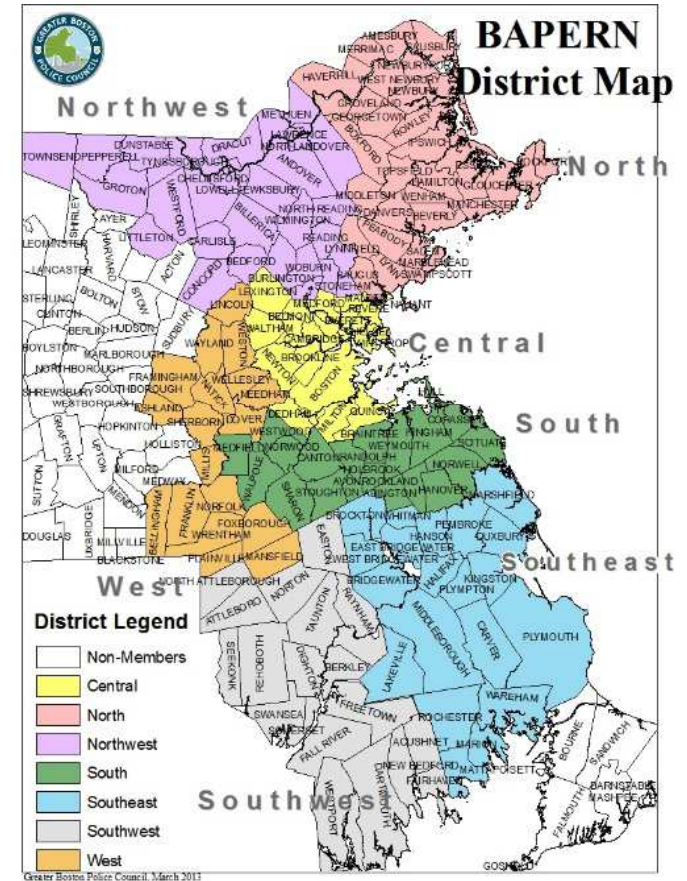
Network Funding

- Planning and implementation funding is provided through **spectrum auctions**
- By law, the **network is to be self-sustaining** upon expending \$7 billion

Phase	Funds	Purpose
Planning	\$135 Million	Grants to assist States/Territories with planning & implementation Requires 20% match
	\$7 Billion	\$2 billion provided up front to start planning, designing and early implementation
Implementation		Remaining \$5 billion to be provided from spectrum auctions; used to complete network build out
Sustainment	Ongoing	Network User Fee: Fee from each entity including public safety or secondary user that uses the Network Lease Fee for Network Capacity: Fee for agreement between the FirstNet and secondary user to permit secondary access Lease Fee for Network Equipment/Infrastructure: Fee for entity that seeks access or use of antennas, towers, etc. constructed or owned by FirstNet

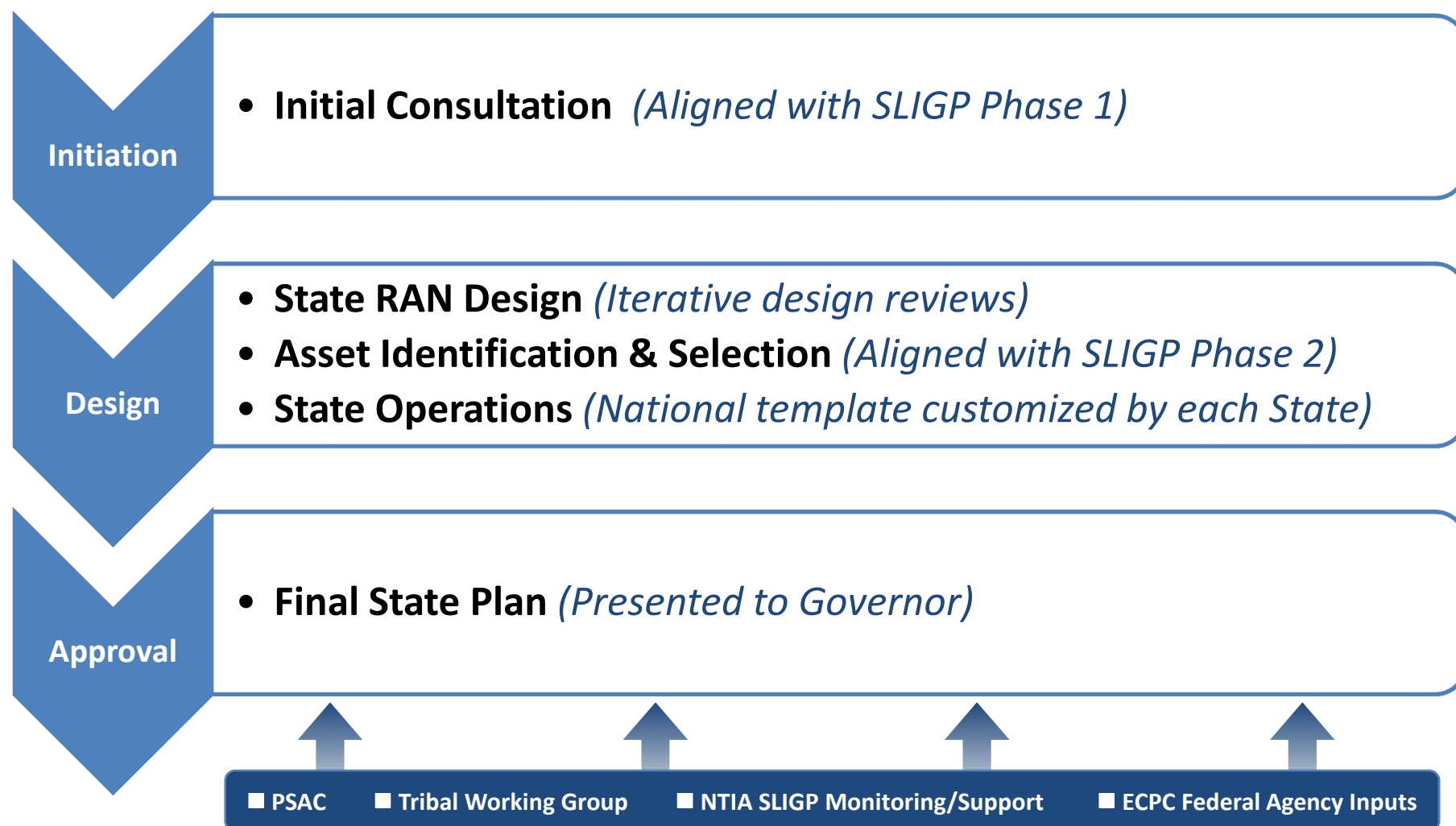
LMR T-Band Giveback

- Spectrum Act
 - Requires the giveback of the T-Band spectrum (470-512 MHz) that is used by public safety and business/industry users on a shared basis
 - T-Band licenses **have up to 9 years to plan the move** to other spectrum and then **2 more years to implement the plan**
 - **Proceeds** from the auction of the T-Band spectrum would be **used to pay for relocation costs**
- Impact on Public Safety
 - Many agencies, particularly in the **Boston metro area**, will be **significantly affected**
 - This will impact all current users of the **Boston Area Police Emergency Radio Network (BAPERN)**



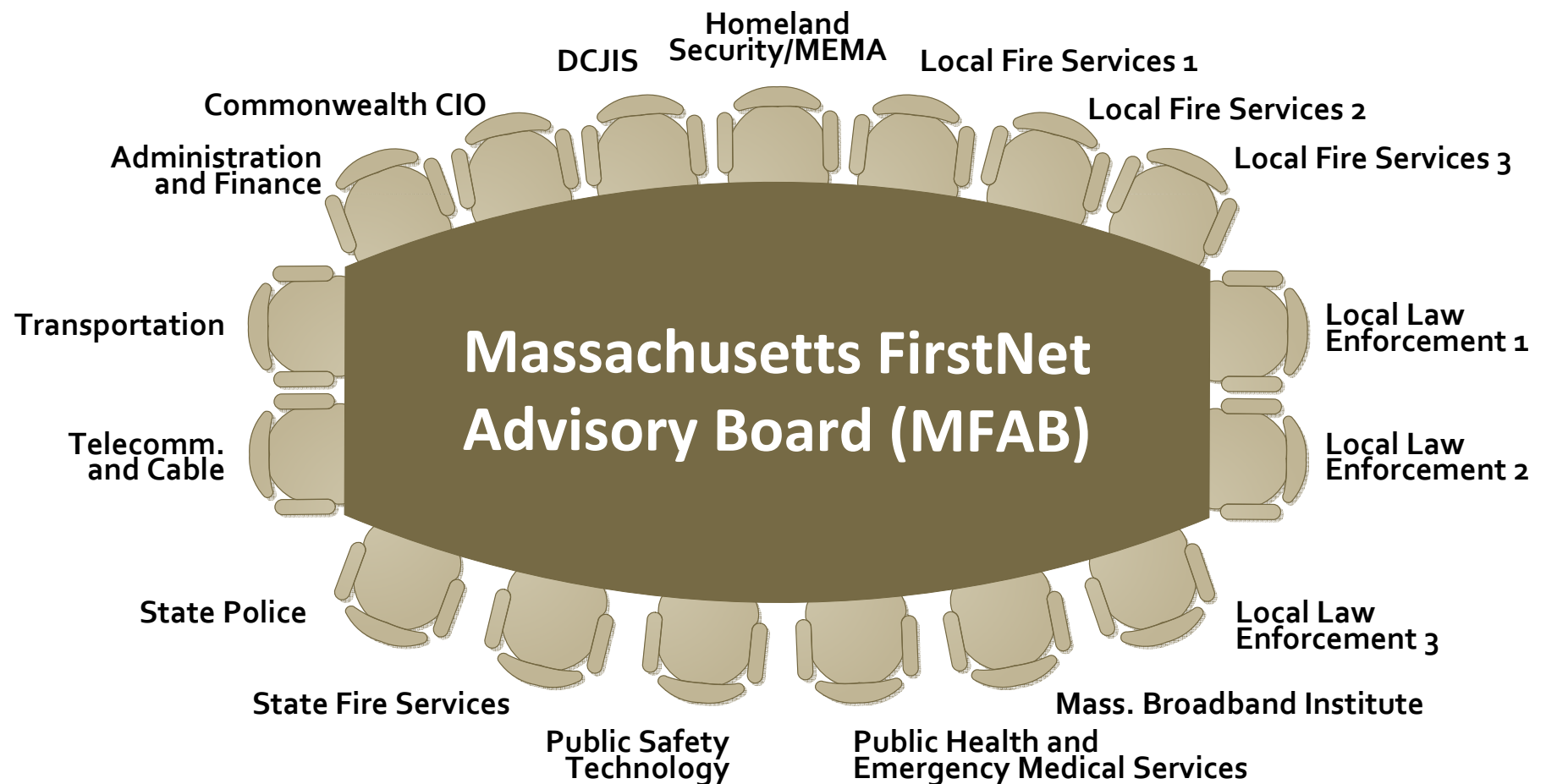
Actions in this proceeding is not anticipated anytime soon as relocation need not occur until 2023

The FirstNet Consultation Process



Governance

Chaired by US Wood, the Commonwealth SPOC, EOPSS has established a **multi-discipline advisory board** to help assist in planning the NPSBN implementation in Massachusetts. The Board has **17 members**.



Opt In or Opt Out Decision

State Decision Process

FirstNet will collaborate with states to develop and deliver a RAN plan that meets their needs.

Consultation

- Regional Workshops
- State Visits
- Ongoing Dialogue

RFP Process

FirstNet
Presents
Plan to
Governor

State Decision 2 Options

90 days to decide
and notify FirstNet,
NTIA and the FCC

Accept FirstNet Plan

FirstNet builds the RAN.

Opt Out

State seeks approval to
construct its own RAN

State Requirements:

- Submit alternate plan to FCC and gain FCC approval
- Complete an RFP
- May apply for grant funding from NTIA
- Must apply to NTIA to lease FirstNet spectrum
- State RAN must connect to the FirstNet Core
- State must pay user fees to FirstNet

Upcoming Activities

Massachusetts PSBO

- Conduct **FirstNet updates** with public safety stakeholder groups (Sept to Dec)
- Convene first **MFAB meeting** (October)
- Participate in **FirstNet Initial Consultation Meeting** (likely Jan-Feb 2015)
- **Collect data** to support FirstNet
- Identify Massachusetts specific **network requirements**
- Identify likely **users and coverage needs**

FirstNet

- Continue to **staff key positions** (including Region 1 liaison)
- Conduct **56 Initial Consultation Meetings**
- Continue development of **FirstNet core**
- Coordinate with PSCR on **testing Band 14 devices** and technologies
- Coordinate with NIST in advocating for inclusion of **Public Safety requirements in upcoming releases of LTE**
- Draft and **issue RFP(s)** for:
 - Comprehensive network
 - Network equipment and services

The Road to FirstNet

2014-2016

Develop FirstNet Roadmap
Conduct outreach and awareness
Consult State consultations
Collect local data and design network
Develop and award comprehensive RFP(s)
Establish network core



2016+

Governor reviews design
offer and opts in or out of
FirstNet RAN deployment
Integrate with Next Generation 9-1-1

2022

Last spectrum auction


Network substantially in operation

Information on the Web

Follow updates at:
mass.gov/psbo



Contact us at:
psbo@state.ma.us



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Home > Public Safety Agencies > Commonwealth Public Safety Broadband Office (PSBO)

Commonwealth Public Safety Broadband Office (PSBO)

Welcome to the PSBO

The Executive Office of Public Safety and Security has established the Public Safety Broadband Office to oversee and direct all Commonwealth planning and implementation activities associated with FirstNet.

This office will coordinate and collaborate with public safety entities, local and state officials, and other stakeholders in preparing the Commonwealth for participation with FirstNet in the building and deployment of the National Public Safety Broadband Network (NPSBN).

PSBO Information

- PSBO Leadership Team
- PSBO Events
- Frequently Asked Questions (FAQs)

News & Updates

- Comprehensive Network Solutions RFI (FirstNet, 9/14)
- Proposed FirstNet Law Interpretations (FirstNet, 9/14)
- FirstNet Law Interpretations FAQs (FirstNet, 9/14)
- FirstNet's Procurement Approach FAQs (FirstNet, 9/14)
- FirstNet Moves Forward on Roadmap (FirstNet, 9/14)

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FirstNet by the Numbers

View a summary of FirstNet – by the numbers.

1 2 3 4 5 6 7 8 9 10 | Learn More »

PSBO's Role with FirstNet and the NPSBN

Initially envisioned by the 9/11 Commission and enacted by the Middle Class Tax Relief and Job Creation Act of 2012, the First Responder Network Authority (FirstNet) is an independent Federal authority within the National Telecommunications and Information Administration (NTIA) that was established to provide emergency responders with a nationwide, high-speed, wireless network dedicated to public safety. The envisioned National Public Safety Broadband Network (NPSBN) will be a nationwide, high-speed, wireless network dedicated to public safety.

Broadband Resources

- MA Statewide Communications Interoperability Plan 18MB
- NPSBN Recommended Minimum Technical Requirements
- NPSTC Definition of Public Safety Grade
- National Broadband Map
- Regional FirstNet Info Session Presentation (PSBO 4/14) 2MB

See All | Subscribe | Learn more

Related Links

- DHS Office of Interoperability and Compatibility (OIC)
- DHS Office of Emergency Communications (OEC)
- DHS SAFECOM Program



QUESTIONS?